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The Mediating Role of Perceived Value on the Relationship between Service Quality and Customer Satisfaction: Evidence from Indonesian Airline Passengers

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Abstract

This study aims to investigate the interrelationship among service quality, perceived value and customer satisfaction. The data were collected from 5-star Indonesian Airline from Surabaya and Malang, East Java Province, Indonesia. Two hundred observation was used to test the hypothesis. The data were analyzed by using Confirmatory factor Analysis and Structural Equation Modelling. The results illustrate that perceived value plays a partial mediating role between the service quality and customer satisfaction constructs.

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Keywords: Service Quality; Perceived Value; customer satisfactio; airline industry, mediating effect; SEM

1. Introduction

As the ASEAN open skies policy applies in 2015, and the airline business competition in ASEAN (Association of South East Asian Nation) countries is increasing. In order to keep up with the tight competition in airline industry, airline practitioners should make sure that they deliver superior quality of service and meet customer satisfaction. Satisfaction is not only regarded as a customer's goal to be obtained as a result of patronizing a service, but also as a firm's goal as a way to the higher customer retention rate and a way to make a profit (Cronin, Brady, &

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Hult, 2000a; McDougall & Levesque, 2000).

Service quality and perceived value are two construct that cannot be separated from customer satisfaction evaluation process. Study on the interrelationship among service quality, perceived value and customer satisfaction have been abundantly conducted (Howat & Assaker, 2013; Park, Robertson, & Wu, 2006; Yu et al., 2014). However, the mediating and moderating effect of perceived value on the relationship between service quality and customer satisfaction is rather neglected (Caruana, Money, & Berthon, 2000). Thus, this study aims to (1) analyze the interrelationship among service quality, perceived value and customer satisfaction, and (2) analyze the mediating and moderating role of perceived value on the relationship between service quality and customer satisfaction.

2. Literature Review and Hypothesis

This study proposes a conceptual model that consists of three constructs, namely service quality, perceived value and customer satisfaction.

2.1. Customer Satisfaction

Holbrook (1994) suggests that customer satisfaction is one of the goals of marketing activity. In accord with Holbrook's suggestion, Kotler & Armstrong (2004) explain that customer satisfaction is an essential element in marketing, or a fundamental concern (Brady & Robertson, 2001; Cronin, Brady, & Hult, 2000b; Tam, 2004b; Williams & Uysal, 2003) since it is important in fulfilling the needs and wants of customers (Churchill & Surprenant, 1982; Han & Ryu, 2009; Kueh & Boo, 2007). Moreover, customer satisfaction is identified as a crucial factor affecting customers' retention rates (Cronin et al., 2000a; Jin, Lee, & Huffman, 2012).

In order to explain customer satisfaction, several theories such as Expectation Disconfirmation, Equity Theory and Comparison-Level Theory can be used (Skogland & Siguaw, 2004; Yi, 1990). Academics (Ekinci, Dawes, & Massey, 2008; Lovelock, Patterson, & Walker, 2001) contend that Expectancy-Disconfirmation Theory is the most essential and it has been accepted widely. This theory covers four elements: expectation, performance, disconfirmation and satisfaction (Lewin, 1938). The expectation construct is a customer's pre-consumption perception associated with goods and services (Barsky & Labagh, 1992) while performance is the foundation of the customer's perception of goods and services (Sinha & DeSarbo, 1998).

2.2. Service Quality

Service quality has been widely acknowledged as an important issue in many industries as it helps a company enhance its profits and also satisfy and retain customers. By providing excellent service quality, a business can create a competitive advantage to distinguish it from other organizations (Buttle, 1996). Thus, research on the measurement of and improvement of service quality, has become essential (Zeithaml & Parasuraman, 2003). However, despite general acknowledgement of service quality's importance, academics have yet to agree on how it should be measured in terms of instruments, dimensions and methods (Brady & Cronin, 2001).

Service quality is defined as the gap between customers' expectations about the service that they have perceived and actually received (Ueltschy & Krampf, 2001; Zeithaml & Parasuraman, 2003). Even though SERVQUAL is widely acknowledge as a service quality measurement, some academics argue that SERVQUAL also has limitations. Thus, some other service quality measurements emerged, such as SERVPERV (Cronin & Taylor, 1992), LODGESERV for hotel industry (Knutson, Stevens, Wullaert, Patton, & Yokoyama, 1990), and the hierarchical model of service quality (Brady & Cronin, 2001). Even though there are numbers of service quality measurement, there is no approach that is superior over others, as measuring service quality should be based on the industry characteristics (Kandampully & Suhartanto, 2003).

Numerous studies of service quality and its consequences have been done since it is a way to create a competitive advantage for a company (Ladhari, 2008; Suhartanto, 2011). Studies have not only identified the service quality measurements but also investigated the consequences of service quality especially the emotional aspect such

as customer satisfaction (Bloemer, De Ruyter, & Peeters, 1998; Howat & Assaker, 2013; Oliver, 2010). Despite the large number of studies, their findings are considered unconvincing (Brady & Cronin, 2001).

Thus, the first hypothesis is formulated as:

H1: There is a direct significant positive relationship between service quality and perceived value.

H2: There is a direct significant positive relationship between service quality and customer satisfaction.

2.3. Perceived Value

Previous studies (Howat & Assaker, 2013; Tam, 2004a; Yu et al., 2014) conclude that service quality drives customers' perceived value. If the customers spend less money, time and energy compared to the service quality they receive, then the customer will perceive a high perceived value of service. In other words, the better the service quality, the higher the customers' perceived value (Howat & Assaker, 2013; Tam, 2004a; Yu et al., 2014). Perceived value also believed as a trigger of customer satisfaction. When a customer received a high value of service, it will result in high satisfaction. Furthermore, perceived value is also identified as a mediating and moderating construct between service quality and customer satisfaction (Caruana et al., 2000; Oh, 1999; Ryu & Han, 2010).

Thus, the next hypothesis are formulated:

H3: There is a direct significant positive relationship between perceived value and customer satisfaction.

H4: Perceived value plays a mediating role on the effects of service quality on customer satisfaction.

The conceptual research model is illustrated in Figure 1.

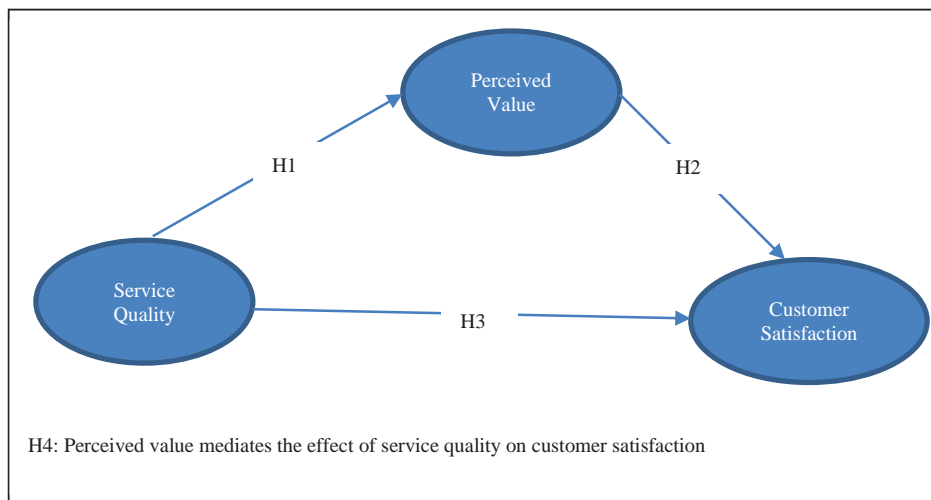


Fig. 1. The Conceptual Research Model

3. Research method

3.1. Constructs Operationalization and Questionnaire Development

Literature review and focus groups discussion were carried out in order to operationalize the constructs and building the questionnaire. The questionnaire consists of two section. The first section capture respondents' perception of the experiences they received from the flight (customer satisfaction, customer engagement and customer loyalty), while the second section capture respondents' demographic characteristics. Seven point Likert's scale was used in the questionnaire, ranking from 1 (strongly disagree) to 7 (strongly agree). Service quality construct is measured by 8 items, perceived value measured by 5 items, and customer satisfaction measured by 5 items.

In order to avoid problems with the instructions, questionnaire design and scale validation, a pre-test of the questionnaire was conducted prior to the distribution of survey. Face validity was conducted as the first step of pre-testing procedures in order to ensure that the items on the questionnaire are not only capturing the empirical issues but also include theoretical and practical. Face validity test was conducted by exposing the questionnaire to a panel consists of three marketing expert and two airline practitioners who are asked to give comments on the items on the questionnaire.

The next step was randomly surveying 30 Indonesian 5-star airline passengers and they were also encouraged to give comments on the questionnaire wording. Furthermore, the data gathered was used to test the reliability of the items in the questionnaire. There were only minor grammatical changes done based on the pre-testing and the Cronbach's alphas for the entire scale was greater than 0.7, indicating that the items are reliable to measure the constructs.

3.2. Data Collection

Three hundred questionnaire were distributed to Indonesian 5-star airline passengers in two International Airport in East Java Province Indonesia. The exclusion of incomplete questionnaire yielding of 83% response rate (250 complete questionnaire). The data of 200 respondents is considered adequate and met the Structural Equation Modelling sample size minimum requirement of 200 observations.

The data gathered from a convenience sampling due to unavailable population data and resources limitation. The questionnaire were distributed in two airports (Surabaya and Malang) in East Java Province Indonesia.

3.3. Data Analysis Technique

Structural Equation Modelling (SEM) was used to analyse the data as it is an appropriate tools to test the theory in human behaviour contexts (Schreiber, Nora, Stage, Barlow, & King, 2006). In SEM, the goodness of fit model needs to be satisfied before doing the hypothesis testing. Confirmatory Factor Analysis (CFA) was performed to ensure that the model specification fits and matches the actual condition or sample (Hurley et al., 1997). Prior to a CFA, the issues of validity, reliability and uni-dimensionality of the model should be assessed. If there is no issue of validity reliability and uni-dimensionality, then the CFA can be performed.

The CFA was conducted in order to evaluate the model fit indices, including the absolute fit indices (chi-square, RMSEA, GFI and SRMR), incremental fit indices (CFI and NFI) and parsimonious fit index (PGFI). Once the goodness-of-fit model is achieved, the hypothesis are tested by using AMOS 22 Software.

In order to examine the role of perceived value as the mediating variable between the service quality and customer satisfaction constructs, two step will be performed in this study. Step one is to examine the direct effect of service quality on customer satisfaction, and step two is to evaluate if the path between service quality and customer satisfaction after the inclusion of the perceived value construct. If the path between service quality and customer satisfaction is remain significant after the inclusion of the perceived value construct, then it means that perceived value plays a partial mediation role. However, if the path between service quality and customer satisfaction become un-significant after the inclusion of perceived value, then it means that perceived value plays a full-mediating role.

4. Result and Discussion

The CFA was conducted prior the hypothesis testing in order to check if the model is regarded as a fit model. The result of the CFA show that the good fit indices were not satisfactory ($\chi^2/df = 2.370$; GFI = 0.868; PGFI = 0.670; CFI = 0.946; NFI = 0.911; RMSEA = 0.074). Modification of the original model by evaluating the modification indices then was done in order to improve the goodness-of-fit indices. One item of service quality construct (SQ7) was deleted from the model, as it has the biggest modification index (9.099). As the deletion of SQ 7 only make a little improvement to the model fit, the evaluation of modification indices was continued, resulting the deletion of PV1 and SQ 8. The deletion of those three items made a satisfactory improvement of the the goodness-of-fit model ($\chi^2/df = 2.004$; GFI = 0.910; PGFI = 0.660; CFI = 0.96; NFI = 0.934; RMSEA = 0.064).

The correlation among the constructs were all below 0.85 which means that the model has no discriminant validity problem. The validity, reliability and uni-dimensionality are adequate to show that the model is fit the actual data/sample. Construct validity is assessed through factor loadings (cut off value of more than 0.6) and average variance extracted (AVE, cut off value of more than 0.6).

The results of CFA show that all AVE are above the cut off value of 0.6 and the factor loadings are also satisfactory (more than 0.6). In addition, discriminant validity can be evaluated through constructs' correlation. The correlation less than 0.85 means that discriminant validity is satisfactory. The results of validity and reliability test is displayed in Table 1.

Table 1. The Result of Validity and Reliability Tests

Construct	Factor Loading	CR	AVE	Cronbach's Alpha
Service Quality SQ1 SQ2 SQ3 SQ4 SQ5 SQ6	0.784 0.717 0.870 0.757 0.777 0.827	0.908	0.624	0.905
Customer Satisfaction CS1 CS2 CS3 CS4 CS5	0.821 0.819 0.797 0.829 0.784	0.905	0.656	0.904
Perceived Value PV2 PV3 PV4 PV5	0.756 0.849 0.857 0.808	0.890	0.669	0.889

Table 2 shows the results of hypothesis testing by using SEM.

Table 2. The Result of Hypothesis Testing

Hypothesized Paths	Estimate	C.R.	P	Remark
H1: SQ → PV	0.791	10.483	***	Supported
H2: PV → CS	0.475	4.325	***	Supported
H3: SQ → CS	0.224	2.140	0.032	Supported
H4: SQ → PV → CS	Partially mediate			Supported

The positive and significant coefficient path between service quality and perceived value indicates that the higher quality of service perceived by the customers, the higher the value perceived by the customers (Hypothesis 1 supported). The significant relationship between service quality and perceived value shows that the more the passenger perceived an excellent quality of service, the more they will perceive the value from the business organization. In this context, perceived quality is measuring the benefit and cost that customers perceived from patronizing a service (Gill, Byslma, & Ouschan, 2007). When customer received a good quality of service, it will enhance their perception of the benefit gain from the service company.

SEM analysis shows a positive effect of perceived value on customer satisfaction, with path coefficient of 0.475 (Hypothesis 2 supported). This finding documents that Indonesian airline passengers who perceived a higher value of service will also display a high level of satisfaction. McDougall and Levesque (2000) maintained that perceived value is a major antecedent of satisfaction as consumers evaluate their satisfaction based on the level of value they received. Furthermore, Diller (2001) contends that every customer tends to trade the value they received with other motivational aspect of loyalty (in this case is customer satisfaction).

The positive and significant path coefficient between service quality and customer loyalty means that higher passenger perception of service quality will raise the level of customer satisfaction (Hypothesis 3 supported). This result aligns with Bagozzi's (1992) point of view which stated that cognitive process would lead to emotional response. In this case, customers' perception of service quality is considered as the cognitive process and it affects customer satisfaction as emotional response.

The test of mediating role of perceived value on the relationship between service quality and customer satisfaction indicate that perceived value plays a partial mediating role. The effect of service quality on customer satisfaction is remain significant when perceived value is inserted in the model (Hypothesis 4 supported).

The partial mediating effect of perceived value on the relationship between service quality and customer satisfaction means when a customer perceived a superior service e quality, and it is the only construct uses to consider the customers; degree of satisfaction, then service quality will affect customer loyalty up to the certain level. However, when customers also consider perceived value as the antecedent of customer satisfaction, then the evaluation of customers' perceived value will diminish the effect of service quality on customer satisfaction. In addition, when a customer perceived a high value of service of a particular brand, the customer will be more likely to be satisfied.

5. Conclusion and Direction for Future Study

In order to enhance customer satisfaction on the airline service, airline practitioners should focus on delivering a superior service quality and provide a high value of service. This study empirically found that service quality and perceived value directly affect customer satisfaction. In addition, perceived value also plays a mediating role between service quality and customer satisfaction. This mediating role implies that the level of customer

satisfaction, is not only depend on the quality of service, but also depends on the trade of between what customers have given (Time, money and energy) compared to what customers receive.

An empirical studies integrating other marketing construct such as customer engagement, brand image and customer loyalty will provide more comprehensive knowledge about customer behavior, especially in the airline industry. Thus, a more comprehensive study will be beneficial.

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